

5. OCCURRENCE OF *BANDICOTA BENGALENSIS* AND *VANDELEURIA OLERACEA* IN WESTERN RAJASTHAN

During the monthly trapping programme for ecological studies on *Rattus melstada pallidior* at Erinpura, Pali district, two species of rodents were collected which are hitherto not reported from this region.

***Bandicota bengalensis kok*** (Gray): Lesser Bandicoot Rat.

*Material examined*: 3 ♂ and 3 ♀ from Bisalpur, 4 km east of Erinpura, Pali district.

*Measurements*: Head & body ♂ 171.50 ± 1.50, ♀ 158.0 ± 2.00; Tail ♂ 127.0 ± 1.0, ♀ 139.00 ± 1.00; Hind foot ♂ 33.5 ± 1.50, ♀ 34.5 ± 0.49; and Ear ♂ 22.5 ± 1.5, ♀ 23.0 ± 1.04.

*B. bengalensis* is being reported for the first time from western Rajasthan. The specimens were collected from scrub grassland and crop fields. Wroughton (1908) had described two new species of *Gunomys* (*Bandicota*), namely, *G. sindicus* (Sind specimens) and *G. lordi* (Konkan specimens) which are now treated as synonyms of *B. b. kok* (Ellerman 1961). According to Wroughton (loc. cit.) *G. kok* could be identified by its finer and softer fur from the two others which have harsh fur, and in possessing smaller (8 mm or less) upper molars (8.3 mm in *G. sindicus* and *G. lordi*). A comparison of the body and molar measurements of specimens of *B. b. kok* (*sindicus*), collected from Pithoro and Umarmkot, Sind; *B. b. kok* (*lordi*), collected from Umarmkot, Sind; as detailed by Ellerman (1961, 820-821) and that of the present collection from Bisalpur (Pali district), reveals that the Rajasthan specimens are smaller in body size than *sindi-*

*cus* from Sind but compare well with *lordi*, except in tail measurement which is fairly shorter. It resembles *Gunomys kok*, as described by Wroughton in having finer and softer fur. As regards the upper molar length, a character used by Wroughton in splitting species, the molar length (7.5 mm) of Rajasthan material is shorter than that of '*sindicus*' but it is comparable to that of '*lordi*'. Thus in body as well as cranial characters Rajasthan specimens are closer to *B. b. kok* (*lordi*). This comparison, which indicates overlapping of measurements of Wroughton's species, justifies the decision taken by Ellerman (1961) in lumping the species described by Wroughton (1908) under *B. b. kok*.

***Vandeleuria oleracea spadicea*** Ryley. The Long-tailed Tree Mouse.

*Material examined*: 2 ♂♂, from Bisalpur, 4 km east of Erinpura, Pali district, western Rajasthan.

The two specimens were collected from thickets of *Prosopis juliflora*, *Acacia nilotica cupreciformis*, *Zizyphus nummularia* and *Mimosa hamata*. The Long-tailed tree mouse, *V. o. spadicea* has been recorded from Gujarat and the present report extends its range further north.

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6. IMPACT OF CYCLONE ON THE RODENT POPULATION IN ANDHRA PRADESH

It is of interest to know about the survival and changes in number of rodents during catastrophes like cyclones. Hence a detailed (Post cyclone) survey of rodent pests in 153 hectares was conducted in Bapatla taluk of Andhra Pradesh immediately after the 1977 severe cyclonic storm which had the intensity of a hurricane and data were compared with pre-cyclone survey made in February, 1977. The areas surveyed were around four villages, Adivi, Ganapavaram, Karlapalem and Maruproluvandlapalem in addition to Bapatla. In these surveys the burrows of different species of rodents were identified and counted by live burrow counting (Barnett, S. A. and Prakash, I., 1975, Rodents of economic importance in

India, Arnold Heineman, New Delhi). Some live burrows were excavated and the number, the litter size and breeding state of the individuals were recorded.

The infestation of rodents was maximum in paddy (*Oryza sativa*) fields followed by bajra (*Pennisetum americana*) and ragi (*Eleusine coracana*). The number of burrows of *Mus* species (*Mus booduga* and *Mus platythrix*) was more followed by *Bandicota bengalensis* and *Rattus rattus* in the agroecosystems (Table 1). The post cyclonic survey indicated an enhancement in the number of burrows. The litter size in the post cyclonic rodent population was also more ( $P < 0.001$  in *B. bengalensis*,  $P < 0.05$  in embryo count and  $P < 0.001$

TABLE 1

DISTRIBUTION OF RODENT BURROWS IN DIFFERENT CROPS AROUND BAPATLA DURING PRE-AND POST-CYCLONE PERIODS

Name of the crop	No. of hectares	Period	Total No. of burrows	Burrows per hectare			
				<i>Mus</i> * sp.	<i>B. bengalensis</i>	<i>R. rattus</i>	<i>T. indica</i>
Paddy ( <i>Oryza sativa</i> )	50	Pre cyclonic	375	4.0	2.0	1.5	—
		Post cyclonic	750	7.0	5.0	3.0	—
Bajra ( <i>Pennisetum americana</i> )	25	Pre cyclonic	112	3.0	1.0	0.5	—
		Post cyclonic	180	5.4	1.0	0.8	—
Ragi ( <i>Eleusine coracana</i> )	28	Pre cyclonic	84	0.5	2.0	0.5	—
		Post cyclonic	70	0.5	1.0	1.0	—
Uncultivated fields	50	Pre cyclonic	10	—	—	—	0.2
		Post cyclonic	40	0.5	—	—	0.3

\* *Mus booduga* and *Mus Platythrix*.